

CLAIM AMENDMENTS

Amend claims: 1-12 and new claims 14-17.

1. (Currently Amended) A shaped Shaped catalyst or catalyst precursor containing a catalytically active component or a precursor therefortherefore, the component selected from the group consisting of ruthenium, iron, cobalt and nickel, supported on a carrier, which catalyst or catalyst precursor is an elongated shaped particle comprising three protrusions each extending from and attached to a central position, wherein the central position is aligned along the longitudinal axis of the particle, the cross-section of the particle occupying the space encompassed by the outer edges of six circles around a central circle, each of the six circles touching two neighbouring neighboring circles whilst while three alternating circles are equidistant to the central circle and may be attached to the central circle, minus the space occupied by the three remaining outer circles and including the six interstitial regions, the shaped catalyst or catalyst precursor having a cross-section in which the three remaining alternating circles have diameters in the range between 0.74 and 1.3 times the diameter of the central circle, the overlap of each alternating circle and the central circle being less than 5% of the area of the central circle.
2. (Currently Amended) The shaped Shaped catalyst or catalyst precursor according to of claim 1, wherein the protrusions are helically wound around the longitudinal axis of the particle.
3. (Currently Amended) The shaped Shaped catalyst or catalyst precursor according to of claim 1 or 2, having a nominal diameter D in the range between 0.5 and 5 mm, preferably between 0.7 and 3 mm, more preferably between 1 and 2 mm.
4. (Currently Amended) The shaped Shaped catalyst or catalyst precursor according to any one of claims 1 to 3, wherein the catalytically active component or a precursor therefore is Co cobalt.

5. (Currently Amended) The shaped Shaped catalyst or catalyst precursor according to any one of claims 1 to 4, containing an element or compound selected from the group consisting of Group IIA, IIIB, IVB, VB, VIB, VIIB or and VIII of the Periodic Table of the Elements.--

6. (Currently Amended) The shaped Shaped catalyst or catalyst precursor according to of claims 1 to 5, wherein the carrier is a refractory oxide, preferably silica, alumina or titania, more preferably titania

7. (Currently Amended) The shaped Shaped catalyst or catalyst precursor according to of claims 1 to 6, having a cross-section in which the three remaining alternating circles have diameters in the range between 0.87 and 1.15 times the diameter of the central circle, preferably a shaped catalyst or catalyst precursor having a cross-section in which the three remaining alternating circles have the same diameter as the central circle, more preferably a shaped catalyst or catalyst precursor in which the three alternating circles are attached to the central circle.

8. (Currently Amended) The shaped Shaped catalyst or catalyst precursor according to of claims 1 to 7, having a L/D length to diameter ratio (mm/mm) of between 1 and 25, preferably between 2 and 10, preferably a shaped catalyst or catalyst precursor having and a length in the range between 1 and 25 mm, more preferably between 2 and 20 mm.

9. (Currently Amended) A process Process for the preparation of a catalyst or catalyst precursor according to claims 1-8, by containing a catalytically active component or a precursor therefore, the component selected from the group consisting of ruthenium, iron, cobalt and nickel, supported on a carrier, which catalyst or catalyst precursor is an elongated shaped particle comprising three protrusions each extending from and attached to a central position, wherein the central position is aligned along the longitudinal axis of the particle, the cross-section of the particle occupying the space encompassed by the outer edges of six circles around a central circle, each of the six circles touching two neighboring circles while three alternating circles are equidistant to the central circle and may be attached to the central circle, minus the space occupied by the three remaining outer circles

and including the six interstitial regions, the shaped catalyst or catalyst precursor having a cross-section in which the three remaining alternating circles have diameters in the range between 0.74 and 1.3 times the diameter of the central circle, the overlap of each alternating circle and the central circle being less than 5% of the area of the central circle comprising pressing, extruding or otherwise forcing a granular or powdered catalyst or catalyst precursor material into various shapes under certain conditions, which will ensure that the particle retains the resulting shape, both during reaction as well as regeneration, preferably by extrusion.

10. (Currently Amended) A die-plate Die-plate designed for use in the preparation of a catalyst or catalyst precursor by extrusion, wherein the die-plate comprises one or more orifices in the shape of the cross-section of the carrier particles as defined in any of claims 1-8, comprising an elongated shaped particle comprising three protrusions each extending from and attached to a central position, wherein the central position is aligned along the longitudinal axis of the particle, the cross-section of the particle occupying the space encompassed by the outer edges of six circles around a central circle, each of the six circles touching two neighboring circles while three alternating circles are equidistant to the central circle and may be attached to the central circle, minus the space occupied by the three remaining outer circles and including the six interstitial regions, the shaped catalyst or catalyst precursor having a cross-section in which the three remaining alternating circles have diameters in the range between 0.74 and 1.3 times the diameter of the central circle, the overlap of each alternating circle and the central circle being less than 5% of the area of the central circle.

11. (Currently Amended) A process Process for the preparation of hydrocarbons by comprising contacting a mixture of carbon monoxide and hydrogen with a catalyst as described in claims 1 to 8, comprising a catalytically active component or a precursor therefore, the component selected from the group consisting of ruthenium, iron, cobalt and nickel, supported on a carrier, which catalyst or catalyst precursor is an elongated shaped particle comprising three protrusions each extending from and attached to a central position, wherein the central position is aligned along the longitudinal axis of the particle, the cross-section of the particle occupying the space encompassed by the outer edges of six circles around a central circle, each of the six circles touching two neighboring circles

while three alternating circles are equidistant to the central circle and may be attached to the central circle, minus the space occupied by the three remaining outer circles and including the six interstitial regions, the shaped catalyst or catalyst precursor having a cross-section in which the three remaining alternating circles have diameters in the range between 0.74 and 1.3 times the diameter of the central circle, the overlap of each alternating circle and the central circle being less than 5% of the area of the central circle
the catalyst optionally being activated by contacting the catalyst precursor with hydrogen or a hydrogen containing gas.

12. (Currently Amended) A process Process for the comprising preparing preparation of fuels and optionally base oils from the hydrocarbons produced by the process for the preparation of hydrocarbons comprising contacting a mixture of carbon monoxide and hydrogen with a catalyst comprising a catalytically active component or a precursor therefore, the component selected from the group consisting of ruthenium, iron, cobalt and nickel, supported on a carrier, which catalyst or catalyst precursor is an elongated shaped particle comprising three protrusions each extending from and attached to a central position, wherein the central position is aligned along the longitudinal axis of the particle, the cross-section of the particle occupying the space encompassed by the outer edges of six circles around a central circle, each of the six circles touching two neighboring circles while three alternating circles are equidistant to the central circle and may be attached to the central circle, minus the space occupied by the three remaining outer circles and including the six interstitial regions, the shaped catalyst or catalyst precursor having a cross-section in which the three remaining alternating circles have diameters in the range between 0.74 and 1.3 times the diameter of the central circle, the overlap of each alternating circle and the central circle being less than 5% of the area of the central circle
the catalyst optionally being activated by contacting the catalyst precursor with hydrogen or a hydrogen containing gas described in claim 11, by hydrogenation, hydroisomerisation and/or hydrocracking.

13. (Original) Fuels and base oils obtainable by a process as described in claim 12.

14. (New) The shaped particle of claim 6, wherein the refractory oxide is selected from the group consisting of silica, alumina and titania

15. (New) The shaped particle of claim 7, having a cross section in which the three remaining alternating circles have the same diameter as the central circle.

16. (New) The shaped particle of claim 7, wherein the three alternating circles are attached to the central circle.

17. (New) The shaped catalyst or catalyst precursor of claim 8, having a length to diameter ratio between 2 and 10 and a length between 2 mm and 20 mm.